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(71) Applicant (for all designated States except US): **PRESIDENT AND FELLOWS OF HARVARD COLLEGE** [US/US]; 1350 Massachusetts Avenue, Suite 727, Cambridge, MA 02138 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GLIMCHER, Laurie, H.** [US/US]; 51 Hampshire Street, West Newton, MA 02165 (US). **MOWEN, Kerri** [US/US]; 121 Park Drive - #40, Boston, MA 02215 (US).

(74) Agents: **DECONTI, Giulio, A.** et al.; Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109 (US).

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(54) Title: MODULATION OF IMMUNE SYSTEM FUNCTION BY MODULATION OF POLYPEPTIDE ARGININE METHYLTRANSFERASES

(57) Abstract: The instant invention pertains to, e.g., method of identifying a compound that modulates cytokine production or T cell receptor-mediated signaling, by identifying modulators of the expression and/or activity or PRMT polypeptides. The invention further pertains to methods for identifying a compound that modulates cytokine production in a non-T cell, by identifying compounds that modulate the expression and/or activity of NIP45. Methods for modulating cytokine production in cells by modulating the expression and/or activity of at least one molecule selected from the group consisting of: NIP45, PRMT1, and NFAT are also provided. The invention also pertains to methods for modulating the relative number of Th1 or Th2 cells is modulated and to methods of treating a subject that would benefit from the modulation of cytokine production comprising contacting an immune cell from the subject with an agent that modulates PRMT 1 expression and/or activity in the immune cell.



WO 2005/060722 A2